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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------|-------------|----------------------|---------------------|------------------|
| 10/690,660 | 10/23/2003 | Heui Seag Park | 1594.1243 | 8931 |
| 21171 | 7590 | 01/05/2005 | | |
| STAAS & HALSEY LLP | | | EXAMINER | |
| SUITE 700 | | | VAN, QUANG T | |
| 1201 NEW YORK AVENUE, N.W. | | | | ART UNIT |
| WASHINGTON, DC 20005 | | | | PAPER NUMBER |
| | | | 3742 | |

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/690,660 | PARK, HEUI SEAG | |

| | | |
|-----------------|-----------------|--|
| Examiner | Art Unit | |
| Quang T Van | 3742 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 November 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-29 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14,16-20 and 23-29 is/are rejected.
- 7) Claim(s) 15,21 and 22 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 23 October 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 8 and 25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 11, and 18 of copending Application No. 10/691,595 in view of Lim (US 5,625,520). The copending Application No. 10/691,595 discloses a cooking cavity (502); an electrical components area (501) partitioned from the cooking cavity (502); a magnetron (503) disposed in the electrical components area (501); a transformer (11) in the electrical components area (501); a container (10) to accommodate the transformer (11), filled with a cooling material (105) to cool the transformer (11), and having base attached to the electrical components area (501). However, the copending Application No. 10/691,595 does not disclose a temperature-sensitive switch electrically connected to the transformer. Lim discloses a temperature-sensitive switch (TH) electrically connected to the transformer (T2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in the copending Application No. 10/691,595 a

temperature-sensitive switch electrically connected to the transformer as taught by Lim in order to shut off power when a temperature of a surface of the transformer is a predetermined overheating temperature.

This is a provisional obviousness-type double patenting rejection.

3. Claims 1, 8 and 25 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 11, and 18 of copending Application No. 10/691,595 in view of Watanabe et al (JP 03161911). The copending Application No. 10/691,595 discloses a cooking cavity (502); an electrical components area (501) partitioned from the cooking cavity (502); a magnetron (503) disposed in the electrical components area (501); a transformer (11) in the electrical components area (501); a container (10) to accommodate the transformer (11), filled with a cooling material (105) to cool the transformer (11), and having base attached to the electrical components area (501). However, the copending Application No. 10/691,595 does not disclose a temperature-sensitive switch electrically connected to the transformer. Watanabe discloses a temperature-sensitive switch (6 a-d) electrically connected to the transformer (1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in the copending Application No. 10/691,595 a temperature-sensitive switch electrically connected to the transformer as taught by Watanabe in order to shut off power when a temperature of a surface of the transformer is a predetermined overheating temperature.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-5, 7-8, 10-12, 14, 18, 24-26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallin et al (US 3,819,899) cited by applicant, in view of Lim (US 5,625,520). Wallin discloses a cooking cavity (24); an electrical components area (10) partitioned from the cooking cavity (24); a magnetron (15) disposed in the electrical components area (10); a transformer (18) in the electrical components area (10); a container (10) to accommodate the transformer (18), filled with a cooling material (col. 2, lines 46-48) to cool the transformer (18), and having base attached to the electrical components area (figure 3). However, Wallin does not disclose a temperature-sensitive switch electrically connected to the transformer. Lim discloses a temperature-sensitive switch (TH) electrically connected to the transformer (T2). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Wallin a temperature-sensitive switch electrically connected to the transformer as taught by Lim in order to shut off power when a temperature of a surface of the transformer is a predetermined overheating temperature. With regard to claims 4 and 11, Lim discloses International Electrotechnical Commission (IEC) regulates that the temperature of the high voltage transformer of the microwave oven should not be over 210⁰C. Lim does not disclose the overheating temperature ranges form about 80⁰C to about 150⁰C. It

would have been obvious to one having ordinary skill in the art at the time the invention was made to select overheating temperature ranges from about 80⁰C to about 150⁰C, since it has been held that selecting overheating temperature range involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 105 USPQ 233, 235 (CCPA 1995).

6. Claims 1-3, 8-10, 19-20, 24-25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallin et al (US 3,819,899) cited by applicant in view of Watanabe et al (JP 03161911). Wallin discloses a cooking cavity (24); an electrical components area (10) partitioned from the cooking cavity (24); a magnetron (15) disposed in the electrical components area (10); a transformer (18) in the electrical components area (10); a container (10) to accommodate the transformer (18), filled with a cooling material (col. 2, lines 46-48) to cool the transformer (18), and having base attached to the electrical components area (figure 3). However, Wallin does not disclose a temperature-sensitive switch electrically connected to the transformer. Watanabe discloses a temperature-sensitive switch (6 a-d) electrically connected to the transformer (1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Wallin a temperature-sensitive switch electrically connected to the transformer as taught by Watanabe in order to shut off power when a temperature of a surface of the transformer is a predetermined overheating temperature. With regard to claim 19, the container is being made of copper or aluminum. Wallin and Watanabe do not mention what kind of material that the container is being made. It would have been obvious to one having ordinary skill in the art to use copper or aluminum as a material for a container. Doing so would improve

Art Unit: 3742

cooling of the transformer, since copper and aluminum are good materials for dissipating heat which is generated from the transformer

7. Claims 6 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallin et al (US 3,819,899) cited by applicant in view of Watanabe et al (JP 03161911) and further in view of Cooney (US 2,053,944). Wallin/Watanabe disclose substantially all features of the claimed invention except the temperature-sensitive switch being connected in series to the secondary coil of the transformer. Cooney discloses temperature-sensitive switch being connected in series to the secondary coil of the transformer (, Figure 4, page 1, col. 2, lines 34-39). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Wallin/Watanabe temperature-sensitive switch being connected in series to the secondary coil of the transformer as taught by Cooney in order to shut off power when a temperature of a surface of the transformer is a predetermined overheating temperature.

8. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wallin et al (US 3,819,899) in view of Lim (US 5,625,520) and further in view of Hay (US 4,523,169). Wallin/ Lim disclose substantially all features of the claimed invention except a separate bracket attached to the base. Hay discloses a separate bracket (54) attached to the base (56). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Wallin/ Lim a separate bracket attached to the base as taught by Hay for easy to remove the container when maintenance or repair is needed.

Art Unit: 3742

9. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wallin et al (US 3,819,899) in view of Lim (US 5,625,520) and further in view of Reed (US 1,571,300). Wallin/ Lim disclose substantially all features of the claimed invention except the container having corrugated sidewalls. Reed discloses a container having corrugated sidewalls (6, lines 70-72). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Wallin/ Lim a container having corrugated sidewalls as taught by Reed in order to provide a larger heat dissipating area.

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wallin et al (US 3,819,899) in view of Lim (US 5,625,520), Reed (US 1,571,300) and further in view of Cronin (US 4,169,965). Wallin/ Lim/Reed disclose substantially all features of the claimed invention except a cooling fan. Cronin discloses a cooling fan (36). It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize in Wallin/ Lim/Reed a cooling fan as taught by Cronin in order to draw external cool air into the electrical component area to cool the transformer.

11. Claims 15, 21, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Amendment

12. Applicant's arguments filed on 11/18/04 have been fully considered but they are not persuasive.

Art Unit: 3742

Applicant argues "Lim only discloses thermostats which sense internal temperature of the transformer, Lim does not disclose a temperature sensitive switch that causes a power shut off when the **surface of the transformer assembly** reaches a predetermined temperature" recited on page 8, line 4-7 of Request for Reconsideration. The Examiner disagrees. Lim discloses a thermostat that is connected to one of two terminal t1 or t2 of first coil L3 as well as another thermostat TH that is connected on the outer surface of second coil L4 to sense the temperature of the second coil L4 (Lim, col. 3, lines 63-67 through co. 4, lines 1-13). The outer surface of second coil L4 is also considered an outer surface of the transformer assembly (see figure 2). Therefore, Lim's reference still meet the claimed limitations.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang T Van whose telephone number is 571-272-4789. The examiner can normally be reached on 8:00Am 7:00Pm M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3742

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


QV
January 3, 2005


Quang T Van
Primary Examiner
Art Unit 3742